

result	No.	Score	Query	Match	Length	DB	ID	Description
1	1977.4	99.9	1979	1979	16	AAQ6298		Human monocyte ch
2	1943.8	98.2	143068	143068	21	AAF21105		Human low adenosi
3	1943.8	98.2	143068	143068	21	AAF21272		Human low adenosi
4	1943.8	98.2	143068	143068	21	AAA34983		Human adenosine r
5	1943.8	98.2	143068	143068	21	AAA35150		Human adenosine r
6	1943.8	98.2	143068	143068	24	ABL68124		Ovary cancer rela
7	1943.8	98.2	149412	149412	21	AAA35151		Human adenosine r
8	1943.8	98.2	152740	152740	21	AAF21273		Human immune sys
9	13113	66.3	105248	105248	24	ART32234		Human immune sys

No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

COMMUNES

Result No.	Score	Query Match	Length	DB	ID
1	1977.4	99.9	1979	16	AAQ96298
2	1943.8	98.2	143068	21	AAF21105
3	1943.8	98.2	143068	21	AAF21272
4	1943.8	98.2	143068	21	AAA34983
5	1943.8	98.2	143068	21	ABM35150
6	1943.8	98.2	143068	24	ABU68124
7	1943.8	98.2	149412	21	AAA35151
8	1943.8	98.2	152740	24	ABU21274
9	1313.3	66.3	105258	24	ABU32334

DNA encoding monocyte chemo-attractant protein-1 receptor - used partic for identifying antagonists and for treating diseases characterised by monocytic infiltrates

To identify and clone new members of the chemokine receptor gene family, degenerate oligo primers were designed corresp. to the conserved sequences R79167 in the second and R79168 in the third transmembrane domains of the MIP-1alpha/RANTES receptor, the IL-8 receptors and the HUMSTRS orphan receptor (GenBank accession #MM92939). The degenerate oligo incorporating EcoRI and XbaI sites at their 5' ends are Q96299 and Q96300. Amplification of cDNA derived from MM6 cells with the primers yielded a number of PCR products. One cDNA appeared to encode a novel protein. To obtain a full-length version of this clone, a MM6 cDNA library was constructed in pERGO and probed with the PCR product. A 2.1 kb cDNA clone was obt'd. Analysis of additional clones in the MM6 cDNA library revealed a second sequence that was identical to the 2.1 kb cDNA sequence first obt'd. From the 5' UTR through the putative seventh transmembrane domain but contained a different cytoplasmic tail. The second sequence appears to represent alternative splicing of the carboxyl-terminal tail of the MCP-1R protein. The two sequences are denoted MCP-1RA and MCP-1RB (see Q96297/R79165 & Q96298/R79166). Active mature MCP-1RA has a predicted mol. wt. of about 41,000 daltons. MCP-1RB has a mol. wt. of about 41,000 daltons.

Sequence	1979 BP;	530 A;	434 C;	452 G;	563 T;	0 other;
Query Match	99.9%				Score 1977.4;	
Best Local Similarity	99.9%				Pred. No. 0;	
Matches 1978;	Conservative				0: Mismatches	
					1: Indels	0: Gaps

Query	Match	Score	DB	Length	1979;
Best Local Matches	Similarity	99.9%	DB 16;	Length	1979;
Matches 1978;	Conservative	99.9%	Pred. No.	0;	
	Mismatches	0;	Indels	0;	Gaps
1	CAGGACTGCCTGAGCAAGCCACAAGCTGACAGGAAAGTGGATTGAAACAGGCCAT	60	Db	1021	GGTATCTCGGTGTTCTCGGAACATCACAGCGCTTCGAAACATACTGGCCAG
1	CAGGACTGCCTGAGCAAGCCACAAGCTGACAGGAAAGTGGATTGAAACAGGCCAT	60	Db	1021	GGTATCTCGGTGTTCTCGGAACATCACAGCGCTTCGAAACATACTGGCCAG
61	TTCGGTACATCCACAAATGCTGCCACATCTCGTTCTCGTTTATCAGAAATACCA	120	Qy	1081	TTCCTACACGGAGACAGTGATGGAGTGAATGACTTCACAAACAGCGCTTC
61	TTCGGTACATCCACAAATGCTGCCACATCTCGTTCTCGTTTATCAGAAATACCA	120	Db	1081	TTCCTACACGGAGACAGTGATGGAGTGAATGACTTCACAAACAGCGCTTC
121	ACGAGAGCGGTGAGAAGTCACCACCTTTTGATTGATTACGGTGCCTGTCATA	180	Qy	1141	AGGAATGTCGGCTGGTTATAAACGAGGAGCTGGTGTGTTAAAGGGAGA
121	ACGAGAGCGGTGAGAAGTCACCACCTTTGATTGATTACGGTGCCTGTCATA	180	Db	1141	AGGAATGTCGGCTGGTTATAAACGAGGAGCTGGTGTGTTAAAGGGAGA
181	AATTGACGTGAGCAAATTGGGGCCAAQCTCCNGCTCCGGCTACTCTGGTTCA	240	Qy	1201	TAACATCTGTATAACAAACTTCAGGGTTGTGACTAAACAGACTATGTC
181	AATTGACGTGAGCAAATTGGGGCCAAQCTCCNGCTCCGGCTACTCTGGTTCA	240	Db	1201	TAACATCTGTATAACAAACTTCAGGGTTGTGACTAAACAGACTATGTC
241	TCTTGGTTGGGCACATGGGGCTCATCTTAATAACTGAAAAGCTGA	300	Qy	1261	CAGGTGCCAGGAACCTCAGGCTGGTGTGACTAACTACAGACTATGTC
241	TCTTGGTTGGGCACATGGGGCTCATCTTAATAACTGAAAAGCTGA	300	Db	1261	CAGGTGCCAGGAACCTCAGGCTGGTGTGACTAACTACAGACTATGTC
301	AGTGCCTGACTGACATTACCTGCTCAACCTGGCCATCTGATCTGGTTCTTATTA	360	Qy	1321	TCCAACATGTGCTCAGGGATAATACTCAGGGATAATACTCAGGGCAGC
301	AGTGCCTGACTGACATTACCTGCTCAACCTGGCCATCTGATCTGGTTCTTATTA	360	Db	1321	TCCAACATGTGCTCAGGGATAATACTCAGGGCAGC
361	CTCTCCCCATTGGGGCTCACTCTGGGATTTGGGAAATGAGTGGCTTGGGAATGTGA	420	Qy	1381	AAAGCTCATCTCAGCTCCGAAATACTGGCTCATACCTTGCTATCTTCTTAG
361	CTCTCCCCATTGGGGCTCACTCTGGGATTTGGGAAATGAGTGGCTTGGGAATGTGA	420	Db	1381	AAAGCTCATCTCAGCTCCGAAATACTGGCTCATACCTTGCTATCTTCTTAG
421	AATTATCACAGGGCTGATACATCGTTATTGGCGGAATCTCTCATCCCTCC	480	Qy	1441	TCTTCAATAATTCTTCACTCAATCTGATTCTGCAATGCTTCTTCTTAG
421	AATTATCACAGGGCTGATACATCGTTATTGGCGGAATCTCTCATCCCTCC	480	Db	1441	TCTTCAATAATTCTTCACTCAATCTGATTCTGCAATGCTTCTTCTTAG
481	TGACAACTCGATAGATACTGGCTATTGTCCTACAGTGATCACTGGCTGTTCTGTC	600	Qy	1501	TGGAGCTGAAAGAGAAATGTCAGAGGAGCATGGATCTGGGATAGTGGGTC
481	TGACAACTCGATAGATACTGGCTATTGTCCTACAGTGATCACTGGCTGTTCTGTC	600	Db	1501	TGGAGCTGAAAGAGAAATGTCAGAGGAGCATGGATCTGGGTC
541	TACCCCTTGGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGG	600	Qy	1561	GAGCAAGGGTCACTGGGATCTGGGATCTGGGATCTGGGATCTGGGATCTGG
541	TACCCCTTGGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGG	600	Db	1561	GAGCAAGGGTCACTGGGATCTGGGATCTGGGATCTGGGATCTGGGATCTGG

Qy	1681	GTTATTAACCTTGAAAGGTTCACAGTCAGGAGTGGACTGAACTACCTG	1740
Db	1681	GTTATTAACCTTGAAAGGTTCACAGTCAGGAGTGGACTGAACTACCTG	1740
Qy	1741	GGAGTTTGGAGTCGGATGATTCTTTCATAAAGTCGACATTTGGCTTT	1800
Db	1741	GGAGTTTGGAGTCGGATGATTCTTTCATAAAGTCGACATTTGGCTTT	1800
Qy	1801	ATTACAGTTATATGGCACCATTGCACCTTCAATTGAAATCTGAATCATGCT	1860
Db	1801	ATTACAGTTATATGGCACCATTGCACCTTCAATTGAAATCTGAATCATGCT	1860
Qy	1861	CCATGGTCAGATGCTTCTAGGCCACATCCCCCTGCTAAATTCGAAATTTGTT	1920
Db	1861	CCATGGTCAGATGCTTCTAGGCCACATCCCCCTGCTAAATTCGAAATTTGTT	1920
Qy	1921	TTATAAAAGTCGCAATTCTATGCTTAATATGCTAATGCAATAAAATTAG	1979
Db	1921	TTATAAAAGTCGCAATTCTATGCTTAATATGCTAATGCAATAAAATTAG	1979
RESULT 2			
ID	AAF21105	standard; DNA: 143068 BP.	
XX			
AC			
XX			
DT	14-MAR-2001	(first entry)	
XX			
DE	Human low adenosine antisense oligonucleotide related sequence #2672.		
XX			
KW	Low adenosine antisense oligonucleotide; phosphorothioate; phosphorothioate; allergy;		
KW	human; airway disorder; bronchoconstriction; lung inflammation;		
KW	surfactant depletion; respiratory; bronchodilator; antiinflammatory;		
KW	immunosuppressive; antiasthmatic; analgesic; hypotensive; cytostatic;		
KW	respiratory obstruction; pulmonary obstruction; impeded respiration;		
KW	surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS;		
KW	respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis;		
KW	pulmonary hypertension; emphysema; pulmonary transplantation; rejection		
KW	chronic obstructive pulmonary disease; pulmonary infection; bronchitis		
KW	cancer; ss.		
XX	Homo sapiens.		
XX	WO2000062736-A2.		
XX	PN		
XX	PD		
XX	26-OCT-2000.		
XX	PF		
XX	24-MAR-2000; 2000WO-US08020.		
PR	PR		
XX	06-APR-1999;	99US-0127958.	
XX	(UYEC-)	UNIV EAST CAROLINA.	
PA	(NYCE-) NYCE J W.		
PA	Nyce JW;		
XX	WPI;	2000-679539/66.	
XX	DR		
PT	Low adenosine (A) content antisense oligonucleotides which do not		
PT	trigger adenosine receptors during metabolism, useful e.g. for treating		
PT	cancers and respiratory obstructions -		
XX	PS	Disclosure; Page 924-957; 1592pp; English.	
XX	PI		
XX	XX		
CC	The present invention describes low adenosine (A) content antisense		
CC	oligonucleotides and compositions (1) comprising them. In the antisense		
CC	oligonucleotides the A is replaced by a 'universal', or alternative base		
CC	(1) can have respiratory, bronchodilator, antiinflammatory, analgesic,		
CC	immunosuppressive, antiasthmatic, hypotensive and cytostatic activities.		
CC	The antisense oligonucleotides and (1) can be used to down regulate the		
CC	expression and/or activity of target polypeptides associated with		
CC	lung/respiratory disorders and malignancies, such as stimulating and		

activating peptide factors and transmitters, transcription factors, immunoglobulins and antibodies, antibody receptors, cytokines and chemokines, endogenously produced specific and non-specific enzymes, binding proteins, adhesion molecules and their receptors, cytokine and chemokine receptors, adenosine receptors, bradykinin receptors, central nervous system (CNS) and peripheral nervous and non-nervous system receptors, CNS and peripheral nervous and non-nervous system peptide transmitters, defensins, growth factors, vasoactive peptides and receptors, binding proteins and malignancy associated proteins. The antisense oligonucleotides may be used in this way to treat disorders including respiratory obstruction (especially pulmonary obstruction and/or bronchoconstriction) and/or lung inflammation, allergy(ies) and/or surfactant hypoproduction which are associated with a disease or condition selected from pulmonary vasoconstriction inflammation, allergies, asthma, impeded respiration, respiratory distress syndrome (RDS), pain, cystic fibrosis (CF), allergic rhinitis (AR), pulmonary hypertension, emphysema, chronic obstructive pulmonary disease (COPD), pulmonary transplantation rejection, pulmonary infections, bronchitis, and/or cancer. AAT18434 to AAF21513 represent human polynucleotide fragments and antisense oligonucleotides used in the exemplification of the present invention.

Db	46712	ACAAATATGGAACATTTGGGGTGTCTGCCGTCTGCATCAGGTCTCTGCATC	46771	Db	47792	TCTTTTCATAAAGTGATGACATAATTGCTTATACAGTTTATGCTTATGCACTG 47751
QY	747	TGGAAATCCGTAAACCCCTGCTTCSGTTGTCAGAACCGAGAAGAGGCATAGGGCAGT	806	QY	1827	CACCTCATTTGAACTCTGAAATCTGAAATCTGTCATGTCATGTTGATGTTGATGCTTGTAGGCCA 1886
Db	46772	TGGGAAATCCGTAAACCCCTGCTTCSGTTGTCAGAACCGAGAAGAGGCATAGGGCAGT	46831	Db	47852	CACCTCATTTGAAATCTGTCATGTCATGTTGATGCTTGTAGGCCA 47911
QY	807	AGAGTCATCTCACCATCATGATTGTTACTTCTCTGGACTCCTATAACATGTC	866	QY	1887	CATCCCCCTGCTCAAATTGAAATTTGGTTATAAAAGATGCCATTATCTATGATA 1946
Db	46832	AGAGTCATCTCACCATCATGATTGTTACTTCTCTGGACTCCTATAACATGTC	46891	Db	47912	CATCCCCCTGCTCAAATTGAAATTTGGTTATAAAAGATGCCATTATCTATGATA 47971
QY	867	ATTCTCCTGACACCCCTCCAGAAATTCTCCGGCAATTCTGGCTTAGTAACTGTGAAAGCACCAGTCAA	926	QY	1947	TGCTAAATATGTTATGCAATAATAA 1973
Db	46892	ATTCTCCTGACACCCCTCCAGAAATTCTCCGGCAATTCTGGCTTAGTAACTGTGAAAGCACCAGTCAA	46951	Db	47972	TGCTAAATATGTTATGCAATAATAA 47998
		RESULT 3				
		AAFF21272				
		ID AAFF21272 standard; DNA: 143068 BP.				
		XX				
		AAFF21272;				
		AC				
		XX				
		DT 14-MAR-2001 (first entry)				
		XX				
		DE Human low adenosine antisense oligonucleotide related sequence #2839.				
		XX				
		KW Low adenosine antisense oligonucleotide; phosphorothioate; phosphorothioate; allergy;				
		KW human; airway disorder; bronchoconstriction; lung inflammation;				
		KW surfactant depletion; respiratory; bronchodilator; antiinflammatory;				
		KW immunosuppressive; antiasthmatic; analgesic; hypotensive; cyclostatic;				
		KW respiratory obstruction; pulmonary obstruction; impeded respiration;				
		KW surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS;				
		KW respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis;				
		KW pulmonary hypertension; emphysema; pulmonary transplantation; rejection;				
		KW chronic obstructive pulmonary disease; pulmonary infection; bronchitis;				
		KW cancer; ss.				
		XX				
		OS Homo sapiens.				
		XX				
		WO200062736-A2.				
		XX				
		PD 26-OCT-2000.				
		XX				
		PF 24-MAR-2000; 2000WO-US00020.				
		XX				
		PR 06-APR-1999; 99US-0124958.				
		XX				
		PA (UYEC-) UNIV EAST CAROLINA.				
		PA (NYCE/) NYCE J W.				
		XX				
		PJ NYCE JW;				
		XX				
		WP; 2000-679539/66.				
		XX				
		PT Low adenosine (A) content antisense oligonucleotides which do not trigger adenosine receptors during metabolism, useful e.g. for treating cancers and respiratory obstructions -				
		XX				
		PS Disclosure; Page 1186-1219; 1592bp; English.				
		XX				
		CC The present invention describes low adenosine (A) content antisense oligonucleotides and compositions (I) comprising them. In the antisense oligonucleotides the A is replaced by a 'Universal', or alternative base.				
		CC (I) can have respiratory, bronchodilator, antiinflammatory, analgesic, immunosuppressive, antisthmatic, hypotensive and cytostatic activities.				
		CC The antisense oligonucleotides and (I) can be used to down regulate the expression and/or activity of target polypeptides associated with				
		CC lung/respiratory disorders and malignancies, such as stimulating and activating peptide factors and transmitters, transcription factors,				
		CC immunoglobulins and antibodies, antibody receptors, cytokines and				
		CC chemokines; endogenously produced specific non-specific enzymes and binding proteins, adhesion molecules and their receptors, cytokines and				
		CC kinase receptors, adenosine receptors, bradykinin receptors, central nervous system (CNS) and peripheral nervous and non-nervous systems.				

RESULT 4			
QY	1887	CATCCCCGTCATAAAATTCTAGAATAATTGGTTATAAAAGATCATTATCTATGATA	1946
Db	47912	CATCCCCGTCATAAAATTCTAGAATAATTGGTTATAAAAGATCATTATCTATGATA	47977
QY	1947	TGCTTAATATGTATGCATAATAA	1973
Db	47972	TGCTTAATATGTATGCATAATAA	47998
ID		Human adenosine receptor related polynucleotide SEQ ID NO:2672.	
AAA34983	AAA34983 standard; DNA; 143068 BP.		
XX			
AC			
XX			
DT	28-JUL-2000 (first entry)		
XX			
DE			
XX			
KW	Human; adenosine receptor; low adenosine antisense oligonucleotide;		
KW	phosphorothioate; impaired respiration; inflammation; allergy;		
KW	allergic disease; bronchoconstriction; inhibitor; antiinflammatory;		
KW	antiallergic; antiastramatic; cytostatic; analgesic; impaired airway;		
KW	lung disease; ischaemic condition; pulmonary vasoconstriction; asthma;		
KW	respiratory distress syndrome; pain; cystic fibrosis; emphysema;		
KW	pulmonary hypertension; chronic obstructive pulmonary disease; COPD;		
KW	cancer; leukaemia; lymphoma; carcinoma; metastasis; ss.		
XX			

OS	Homo sapiens.
XX	
PN	WC000009525-A2.
XX	
PD	24-FEB-2000.
XX	
PF	03-AUG-1999;
XX	99WO-US17712.
PR	03-AUG-1998;
XX	98US-0095212.
PA	(UYEC-) UNIV EAST CAROLINA.

xx Nye JW;
 PI xx
 DR xx
 WPI: 2000-205971/18.
 xx New antisense oligonucleotides useful for treating e.g. pulmonary
 PT vasoconstriction, inflammation, allergies, asthma, hypertension,
 PR respiratory distress syndrome, ischemia or
 bronchitis, emphysema, bronchitis,

PT Disclosure: Page 851-882; 1343PP; English.
XX PS
XX The present invention describes a new composition comprising an
CC antisense Oligonucleotide (ON) with low adenosine (up to 15%), which
CC targets nucleic acids involved in bronchoconstriction allergies, and/or
CC inflammation. The ON can have antiinflammatory, antiallergic,
CC antiasthmatic, cytostatic and analgesic activities. The compositions are
CC useful for the treatment of diseases associated with inflammation,
CC impaired airways, including lung disease and diseases whose secondary
CC effects afflict the lungs of a subject. They can be used for treating
e.g. ischaemic conditions, pulmonary vasoconstriction, allergies,
CC asthma, impeded respiration, respiratory distress syndrome, pain, cystic
fibrosis, pulmonary hypertension, emphysema, chronic obstructive
CC pulmonary disease (COPD), and cancers such as leukaemias, lymphomas,
CC carcinomas, and cancers which may metastasise to the lungs, including
breast and prostate cancer. The reduction of the adenosine content of
the ONs reduces side effects. The A-containing ONs break down with the
CC release of deoxyadenosine which activates adenosine receptors causing
bronchoconstriction and inflammation. AAA32313 to AA33312 represent the
nucleotide sequences given in the sequence listing from the present
invention, which correspond to SEQ ID NO:1 to 2815, and then the last
185 sequences are also called SEQ ID NO:1 to 185, but the sequences
differ from the previously named sequences. SEQ ID NO:1 to 180
(AAA32323 to AA33992) are specifically claimed ONs from the present
CC

CC invention. N.B. Sequences given in the disclosure of the present
 CC invention do not match up with their corresponding SEQ ID NO: sequences
 XX given in the sequence listing.

SQ	Sequence 143068	BP;	41194	A;	30122	C;	32402	G;	39350	T;	0 other;
Query	Match		98.28;	Score	1943.8;	DB	21;	Length	143068;		
Best	Local	Similarity	99.98;	Pred.	No.	0;					
Matches	1945;	Conservative	0;	Mismatches	0;	Deletions	0;	Insertions	0;		

Db	4 6892	ATTCCTGACACCTTCCAGGAATTCTGGCCCTGAGTAACGTAACTGTCAGCAACAGTCAA	4 6951
Qy	9 27	CTGGACCAAGCCAGGAGGTGACAGAAGCTCTGGGATGACTCACTGCTCATCAATCCC	9 86
Db	4 6952	CTGGACCAAGCCAGGAGGTGACAGAAGCTCTGGGATGACTCACTGCTCATCAATCCC	4 7011
Qy	9 87	ATCATCTATGCCCTCGTGGGAGAAGTTCTGAAGGTATCTCTGGGATGACTCACTGCTCATCAATCCC	10 46
Db	4 7012	ATCATCTATGCCCTCGTGGGAGAAGTTCTGAAGGTATCTCTGGGATGACTCACTGCTCATCAATCCC	4 7071
Qy	10 47	CACATCACCAGCGCTCTGCAACAACTCCACGTTCTACAGGAGACAGTGATGGGA	11 06
Db	4 7072	CACATCACCAGCGCTCTGCAACAACTCCACGTTCTACAGGAGACAGTGATGGGA	4 7131
Qy	11 07	GTCAGCTAACAAACAGCGCTTCACTGGGAGGAATAACATACTGTATAAACAAACT	11 66
Db	4 7132	GTCAGCTAACAAACAGCGCTTCACTGGGAGGAATAACATACTGTATAAACAAACT	4 7191
Qy	11 67	GAGGAGCAGTTGATGTTGTTATAAGGGAGATAACATACTGTATAAACAAACT	12 26
Db	4 7192	GAGGAGCAGTTGATGTTGTTATAAGGGAGATAACATACTGTATAAACAAACT	4 7251
Qy	12 27	TCAAGGGTTGTGAACTAGAAAACCTGTAANGCAGGTGCCAGGAACCTCAGGGCTGT	12 86
Db	4 7252	TCAAGGGTTGTGAACTAGAAAACCTGTAANGCAGGTGCCAGGAACCTCAGGGCTGT	4 7311
Qy	12 87	GTTGACTAAATACAGACATATGTCACCATGTCATATCACAATGTCATGGGATAATCC	13 46
Db	4 7312	GTTGACTAAATACAGACATATGTCACCCATGCAATATCACAATGTCATGGGATAATCC	4 7371
Qy	13 47	AGAAAACCTGTTGAGACTTGTACTCTCCAGAACTCTCACITCTCACGTCCTGAAAATA	14 06
Db	4 7372	AGAAAACCTGTTGAGACTTGTACTCTCACITCTCACGTCCTGAAAATA	4 7431
Qy	14 07	GCCTCATTAACCTTGTGCTTAATCTCATTTCTAGTCATATTCTCACITCAACCTC	14 66
Db	4 7432	GCCTCATTAACCTTGTGCTTAATCTCATTTCTAGTCATATTCTCACITCAACCTC	4 7491
Qy	14 67	TGATTCTGTCATATGTCATGAACTCAGGGCAGCTGGAGTGAAGAGAAATGTGCAG	15 26
Db	4 7492	TGATTCTGTCATATGTCATGAACTCAGGGCAGCTGGAGTGAAGAGAAATGTGCAG	4 7551
Qy	15 27	GCACAGATGAATGGGATGTGAGGATATGGGGTCAGGGCTGAGAGGAAGGGAGAC	15 86
Db	4 7552	GCACAGATGAATGGGATGTGAGGATATGGGGTCAGGGCTGAGAGGAAGGGAGAC	4 7611
Qy	15 87	ATGGACATGGCTGAGCTGGCAAAAGCAAAAGGTGAGCAAGGGCTOACGATTCAACCA	16 46
Db	4 7612	ATGGACATGGCTGAGCTGGCAAAAGCAAAAGGTGAGCAAGGGCTOACGATTCAACCA	4 7671
Qy	16 47	GGAGATGATATCTGGTCCATTGCCCATGTCACGTGTAATTAACTTGAGGGTTCACC	17 06
Db	4 7672	GGAGATGATATCTGGTCCATTGCCCATGTCACGTGTAATTAACTTGAGGGTTCACC	4 7731
Qy	17 07	AGGTCAGGAGTTGGGAACTGCAATTACCTGGGAGTTGGGAGTCGATGCTTCAATCCC	17 66
Db	4 7732	AGGTCAGGAGTTGGGAACTGCAATTACCTGGGAGTCGATGCTTCAATCCC	4 7791
Qy	17 67	TCTTTCGCTAAAGTCGTCATGACATATTTCGCTTATTACAGTTATCTTCACTGACCATG	18 26
Db	4 7792	TCTTTCGCTAAAGTCGTCATGACATATTTCGCTTATTACAGTTATCTTCACTGACCATG	4 7851
Qy	18 27	CACCTTACATTGAAATCTGAAATATCATGTCATGTCAGTCATGCTTCAATGCCCA	18 86
Db	4 7852	CACCTTACATTGAAATATCATGTCATGTCAGTCATGCTTCAATGCCCA	4 7911
Qy	18 87	CATCCCCCTGCTAAAAATTCAAGAAATTCTGGGATCTTGGGAGTCATGCTTCAATGCCCA	19 46
Db	4 7912	CATCCCCCTGCTAAAAATTCAAGAAATTCTGGGAGTCATGCTTCAATGCCCA	4 7971
Qy	19 47	TGCTTAATAATATGATATGCAATAATAA	19 73
Db	4 7972	TGCTTAATAATATGATATGCAATAATAA	4 7998

Best Local Similarity	Pred.	No. 0;	Matches	Indels	0;	Gaps	0;	
99.9%								
Matches 1945; Conservative 0;	Mismatches	2;						
Qy 27 CTGACAGAGAACTGGATTGAAAGGAGCCATTCCCACTGATCACATGGT 86	Db 52396 CAGACAGAGAAACTGGATTGAAAGGAGCACTCCAGATCACATGGT 52455	Db 53416 CACATCACCAGGGTTCTGCAAAATGTCAGGGAGAACGTGGATGGA 53475	Db 53416 CACATCACCAGGGTTCTGCAAAATGTCAGGGAGAACGTGGATGGA 53475	Qy 1107 GTGAGTTCAACAAARACGGCTTCCACTGGGAGAAGTCTGGCTTATAAAAC 1166				
Qy 87 TCCACATCGTTCTCGTTTATGAAATAACGAGAGGGTGAAGAAGTCACCC 146	Db 52456 TCCACATCGTTCTCGTTTATGAAATAACGAGAGGGTGAAGAAGTCACCC 52515	Db 53476 GTGACTTCACAAACAGCGCTTCCACTGGGAGAAGTCTGGCTTATAAAAC 53535	Db 53476 GTGACTTCACAAACAGCGCTTCCACTGGGAGAAGTCTGGCTTATAAAAC 53535	Qy 1167 GAGGAGCAGTTGATGTTGATGTTAAAGGGATAAACATCTGATATAACAAAC 1226				
Qy 147 TTGTTGATTGATTGATTGACTGGTGTCCCTCATAAATTGACGTGAAGCAANTGGGCC 206	Db 52516 TTGTTGATTGATTGATTGACTGGTGTCCCTCATAAATTGACGTGAAGCAANTGGGCC 52575	Db 53596 TCAAGGTTGTTGATGAACTGTAAGAACCTGTAAGGZAGGTGCAAGAACCTCAGGGCTG 1286	Db 53596 TCAAGGTTGTTGATGAACTGTAAGGZAGGTGCAAGAACCTCAGGGCTG 1286	Qy 1227 TCAAGGTTGTTGATGAACTGTAAGAACCTGTAAGGZAGGTGCAAGAACCTCAGGGCTG 1286	Qy 1227 TCAAGGTTGTTGATGAACTGTAAGAACCTGTAAGGZAGGTGCAAGAACCTCAGGGCTG 1286	Qy 1227 TCAAGGTTGTTGATGAACTGTAAGAACCTGTAAGGZAGGTGCAAGAACCTCAGGGCTG 1286	Qy 1227 TCAAGGTTGTTGATGAACTGTAAGAACCTGTAAGGZAGGTGCAAGAACCTCAGGGCTG 1286	Qy 1227 TCAAGGTTGTTGATGAACTGTAAGAACCTGTAAGGZAGGTGCAAGAACCTCAGGGCTG 1286
Qy 207 CAACTCCCTGCCTCCCTACTCGCTGTTCATCTGGTGGCAACATGGTG 266	Db 52576 CAACTCCCTGCCTCCCTACTCGCTGTTCATCTGGTGGCAACATGGTG 52635	Db 53656 GTGACTTAATACAGACTATGTCACCCAACTGATGTTCAAGGAAATATCC 53715	Db 53656 GTGACTTAATACAGACTATGTCACCCAACTGATGTTCAAGGAAATATCC 53715	Qy 1347 AGAAAACACTGGTGTAGAGACTTGACTCTCCAGAAAGCTCATTCAGGCTGTAAGGAAATAAT 1406				
Qy 267 GTCGTCCTCATCTTAATAAAGCTGAACTGTAACCTGGTACTGACATTTACCTGGTC 326	Db 52636 GTGCGCCATCTGCTCATCTTAATAAAGCTGAACTGTAACCTTACCTGGTC 52695	Db 53716 AGAAAACACTGGTGTAGAGACTTGAATCTCAGGCTGTAAGGAAATATCC 53775	Db 53716 AGAAAACACTGGTGTAGAGACTTGAATCTCAGGCTGTAAGGAAATATCC 53775	Qy 1407 GCCTCATTTACCTTGGCTAATCTCTTTCTAGTGTCTCATTAATTCCTCACTCACTTC 1466				
Qy 327 AACCTGGCCATCTCTGATCTGCTTCTTCTTATTACTCCCATGTTGGCTCACTCTGCT 386	Db 52696 AACCTGGCCATCTCTGATCTGCTTCTTCTTATTACTCCCATGTTGGCTCACTCTGCT 52755	Db 53776 GCCTCATTTACCTTGGCTTAATCTCTTTCTAGTGTCTCATTAATTCCTCACTCACTTC 53835	Db 53776 GCCTCATTTACCTTGGCTTAATCTCTTTCTAGTGTCTCATTAATTCCTCACTCACTTC 53835	Qy 1467 TGATCTGGTCAATGTTGTAATCTGTTGAAATACAGGGCCAGCTGGAGGTGAAGAGAATGTGACAG 1526				
Qy 447 GGTATTTCGGGAAATCTCTCATCTCCCTGACATCTGATGAACTGGCTATT 506	Db 52816 GTTATTTCGGGAAATCTCTCATCTCCCTGACATCTGATGAACTGGCTATT 52875	Db 53836 TGATCTGTCATGTTGCTAATCTGTTGAAATACAGGGCTGAGGTGACAG 53895	Db 53836 TGATCTGTCATGTTGCTAATCTGTTGAAATACAGGGCTGAGGTGACAG 53895	Qy 1527 GCACAGCATGATGGGGTGTAGGGATAGTGGGTCAAGGGCTGAGGGAGAC 1586				
Qy 507 GTCCATGCTGNTGTTAAAAGCCAGGAGCCTACCCCTGGGTGTTGACAAAGTGTG 566	Db 52876 GTCCATGCTGNTGTTAAAAGCCAGGAGCCTACCCCTGGGTGTTGACAAAGTGTG 52935	Db 53896 GCACAGCATGATGGGGTGTAGGGATAGTGGGTCAAGGGCTGAGGGAGAC 53955	Db 53896 GCACAGCATGATGGGGTGTAGGGATAGTGGGTCAAGGGCTGAGGGAGAC 53955	Qy 1587 ATGAGATGGCTGAGCTGGAAATAACAGGTGACCAAAGGCTACGGCTATCGGCCA 1646				
Qy 567 ATCACCTGGTTGGCTGTTCTCGTGTCCCAGGAACTCATCTGGCTCCTGCT 626	Db 52936 ATCACCTGGTTGGCTGTTCTCGTGTCCCAGGAACTCATCTGGCTCCTGCT 53055	Db 53956 ATGAGCATGCTGAGCTGGCTCATCTGGCTCCTGCT 54015	Db 53956 ATGAGCATGCTGAGCTGGCTCATCTGGCTCCTGCT 54015	Qy 1647 GGAGATGATACCTGTCCTTAGCCCATCTGCCAGTGTSTATTAACCTTGAAGGTGTCAC 1706				
Qy 687 ACAATATGAGGAACATTTGGCTGTTCTGGCTCCTGCTCATCTGGCTCCTGCT 746	Db 53056 ACAATATGAGGAACATTTGGCTGTTCTGGCTCCTGCTCATCTGGCTCCTGCT 53115	Db 54016 GGAGATGATACCTGTCCTAGCCCCATCTGCCAGTGTSTATTAACCTTGAAGGTGTCAC 54075	Db 54016 GGAGATGATACCTGTCCTAGCCCCATCTGCCAGTGTSTATTAACCTTGAAGGTGTCAC 54075	Qy 1707 AGGTCAAGGGAGATTTGGGAACCTGACAACTGGGTGTTGGTGGAGTCCGGATGATT 1766				
Qy 747 TCGGGATTCCTGAAAACCCGCTGTTGGCTGAGGAGAAAGGCTGAGCTGGCT 806	Db 53116 TCGGGATTCCTGAAAACCCGCTGTTGGCTGAGGAGAAAGGCTGAGCTGGCT 53175	Db 54196 CACCTTACATTGAAACTATCATCTGTCATGACATTTTGTCTTATGCTGCT 54255	Db 54196 CACCTTACATTGAAACTATCATCTGTCATGACATTTTGTCTTATGCTGCT 54255	Qy 1887 CATCCCTGCTGCTAAAATTCAGAAAATTTGTCTTATAAAAGATGCTATCTGCT 54195				
Qy 807 AGAGTATCTCACCACATCATGATGTTACTTCTCGGACTCTATAACATGGT 866	Db 53176 AGAGTATCTCACCACATCATGATGTTACTTCTCGGACTCTATAACATGGT 53235	Db 54256 CACCCCCCTGCTAAAATTCAGAAAATTTGTCTTATAAAAGATGCTATCTGCT 54315	Db 54256 CACCCCCCTGCTAAAATTCAGAAAATTTGTCTTATAAAAGATGCTATCTGCT 54315	Qy 1947 TCGCTAATATGATGCTATGCAATAATAA 1973				
Qy 867 ATTCTCTGAAACCTTCCAGGAATTCCTGGCTGAGTAAGTGTGAAGGACCTAA 926	Db 53236 ATTCTCTGAAACCTTCCAGGAATTCCTGGCTGAGTAAGTGTGAAGGACCTAA 53295	Db 54316 TGCTTAATATGATGCTATGCAATAATAA 54342	Db 54316 TGCTTAATATGATGCTATGCAATAATAA 54342	Qy 14 MAR 2001 (first entry)				
Qy 927 CTGGACCAAGCCACGCGCTGAGGAGCTGGCTGAGACTCTGGCTGAGCTGGCT 986	Db 53396 CTGGACCAAGCCACGCGCTGAGGAGCTGGCTGAGACTCTGGCTGAGCTGGCT 53355	RESULT 8 AAF21273 ID AAF21273 standard DNA; XX AC XX DE Human low adenosine antisense oligonucleotide related sequence #2844 .	RESULT 8 AAF21273 ID AAF21273 standard DNA; XX AC XX DE Human low adenosine antisense oligonucleotide related sequence #2844 .					
Qy 987 ATCATCTATGCCCTGAGGAGCTGGCTGAGACTCTGGCTGAGCTGGCT 1046	Db 53356 ATCATCTATGCCCTGAGGAGCTGGCTGAGACTCTGGCTGAGCTGGCT 53415							
Qy 1047 CACATCCAAGCGCTTCTGCAAACTGTCAGGAACTGTCAGGATGG 1106	Db 53436 ATCATCCAAGCGCTTCTGCAAACTGTCAGGAACTGTCAGGATGG 53432							

KW Low adenosine antisense oligonucleotide; phosphorothioate; allergy; human; airway disorder; bronchoconstriction; lung inflammation; surfactant depletion; respiratory; bronchiodilator; antiinflammatory; immunosuppressive; antiasthmatic; analgesic; hypotensive; cytostatic; respiratory obstruction; pulmonary obstruction; impeded respiration; surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS; respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis; pulmonary hypertension; emphysema; pulmonary transplantation rejection; chronic obstructive pulmonary disease; pulmonary infection; bronchitis; cancer; ss.

XX OS Homo sapiens.

XX PN WO2000062736-A2.

XX PD 26-OCT-2000.

XX PF 24-MAR-2000; 2000WO-US08020.

XX PR 06-APR-1999; 99US-0127958.

PA (UYEC-) UNIV EAST CAROLINA.

PA (NYCE-) NYCE J W.

PI Nyce JW.

XX WPI; 2000-679539/66.

XX PT Low adenosine (A) content antisense oligonucleotides which do not trigger adenosine receptors during metabolism, useful e.g. for treating cancers and respiratory obstructions -

XX Disclosure: Page 1219-1254; 1592pp; English.

XX The present invention describes low adenosine (A) content antisense oligonucleotides and compositions (I) comprising them. In the antisense oligonucleotides the A is replaced by a 'universal' or alternative base. (I) can have respiratory, bronchiodilator, antiinflammatory, analgesic, immunosuppressive, antiasthmatic, hypotensive and cytostatic activities. The antisense oligonucleotides (I) can be used to down-regulate the expression and/or activity of target polypeptides associated with lung, respiratory disorders and malignancies such as stimulating and activating Peptide factors and transmitters, transcription factors, immunoglobulins and antibodies, antibody receptors, cytokines and chemokines, endogenously produced specific enzymes, binding proteins, adhesion molecules and their receptors, cytokine and chemokine receptors, adenosine receptors, bradykinin receptors, central nervous system (CNS) and peripheral nervous and non-nervous system receptors, CNS and peripheral nervous and non-nervous system Peptide transmitters, defensins, growth factors, vasoactive peptides and receptors, binding proteins and malignancy associated proteins. The antisense oligonucleotides may be used in this way to treat disorders including respiratory obstruction (especially pulmonary obstruction and/or bronchoconstriction) and/or lung inflammation, allergy(ies) and/or surfactant hypoproduction which are associated with a disease or condition selected from pulmonary vasoconstriction, inflammation, allergies, asthma, impeded respiration, respiratory distress syndrome (RDS), pain, cystic fibrosis (CF), allergic rhinitis (AR), pulmonary hypertension, emphysema, chronic obstructive pulmonary disease (COPD), pulmonary transplantation rejection, pulmonary infections, bronchitis, and/or cancer. AAF18434 to AAF21513 represent human polynucleotide fragments and antisense oligonucleotides used in the exemplification of the present invention.

Sequence 152740 BP; 44169 A; 32023 C; 34549 G; 41999 T; 0 other;

KW	Qy	87	TCCACATCTCGTTCTCGGTTATCAGAAATCCACGAGGGTGAAGTCACCA	146
KW	Db	52456	TCCACATCTCGTTCTCGGTTATCAGAAATCCACGAGGGTGAAGTCACCA	52515
KW	Qy	147	TTTTTGATTATGATTACGGTGTCTCCCTGTCATAATTGAGTGAACAAATGGGCC	206
KW	Db	52516	TTTTTGATTATGATTACGGTGTCTCCCTGTCATAATTGAGTGAACAAATGGGCC	52575
KW	Qy	207	CAACTCTGCCTCCGCTACTCGCTGTTGTTGAGTGAACATGCTG	266
KW	Db	52576	CAACTCTGCCTCCGCTACTCGCTGTTGTTGAGTGAACATGCTG	52635
KW	Qy	267	GTCGTCTCATCTTAAATAACTGCAAAGCTGAATGCTGACTGACATTTACCTGCTC	326
KW	Db	52636	GTCGTCTCATCTTAAATAACTGCAAAGCTGAATGCTGACTGACATTTACCTGCTC	52695
KW	Qy	327	AACCTGGCCATCTCTGATCTGCTTCTTATTACTCTCCATTGTTGGCTCACTCTGCT	386
KW	Db	52696	AACCTGGCCATCTCTGCTTCTTATTACTCTCCATTGTTGGCTCACTCTGCT	52755
KW	Qy	387	GCAATGAGCAGGGCTTTGGAAATGCAATGCTGTTGGCTGATCATGCTCAT	446
KW	Db	52756	GCAATGAGCAGGGCTTTGGAAATGCAATGCTGTTGGCTGATCATGCTCAT	52815
KW	Qy	447	GGTTATTTCGGGAACTCTTCATCCCTCTGATCATCCCTGACAAATGGCTATT	506
KW	Db	52816	GGTTATTTCGGGAACTCTTCATCCCTCTGATCATCCCTGACAAATGGCTATT	52875
KW	Qy	507	GTCCATGCTGCTGTTAACACCAGGAGGTACCTTGGGGTGGTGAAGTGTG	566
KW	Db	52876	GTCCATGCTGCTGTTAACACCAGGAGGTACCTTGGGGTGGTGAAGTGTG	52935
CC	Qy	567	ATCACCTGTTGGCTGCTGTTGGCTGCTGTTGGCTGCTGTTGGCTGCTG	626
CC	Db	52936	ATCACCTGTTGGCTGCTGTTGGCTGCTGTTGGCTGCTGTTGGCTGCTG	52995
CC	Qy	627	AAAGAGATCTGTATGCTGTTGGCCCTATTTCCACGGATGGAATAATTGTCAC	686
CC	Db	52996	AAAGAGATCTGTATGCTGTTGGCCCTATTTCCACGGATGGAATAATTGTCAC	53055
CC	Qy	687	ACATAATGAGAACATTGGGGTGGCTCATCATGGTCATCTGTCATGTCAT	746
CC	Db	53056	ACATAATGAGAACATTGGGGTGGCTCATCATGGTCATCTGTCATGTCAT	53115
CC	Qy	747	TCTGGGAATCTGAAACCCGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGG	806
CC	Db	53116	TCTGGGAATCTGAAACCCGCTGGCTGGCTGGCTGGCTGGCTGGCTGGCTGG	53175
CC	Qy	807	AGACTCATCTCACATCATGATGTTACTTCCTCTGGACTCCCTATAACATTGTC	866
CC	Db	53176	AGACTCATCTCACATCATGATGTTACTTCCTCTGGACTCCCTATAACATTGTC	53235
CC	Qy	867	ATTCCTGAAACCCCTCCAGGAATCTCCAGGCTGCTGACTGTAAGCACCCTCAA	926
CC	Db	53236	ATTCCTGAAACCCCTCCAGGAATCTCCAGGCTGCTGACTGTAAGCACCCTCAA	53295
CC	Qy	927	CCTGACCAAGCCACGGTACGTGACAGACTCTGGATGACTCTGGCTCATCATCCC	986
CC	Db	53296	CCTGACCAAGCCACGGTACGTGACAGACTCTGGATGACTCTGGCTCATCATCCC	53355
CC	Qy	987	ATCATCTATGCCCTGCTGGGAAAGTCAAGGTATCTCGGTGTCCTCCGAAAG	1046
CC	Db	53356	ATCATCTATGCCCTGCTGGGAAAGTCAAGGTATCTCGGTGTCCTCCGAAAG	53415
SQ	Query Match	98.2%	Score 1943.8;	DB 21; Length 152740;
SQ	Best Local Similarity	99.9%	Pred. No. 0;	Mismatches 0; Indels 2; Caps 0;
SQ	Matches 1945; Conservative			
Qy	27	CITGACAGAAACTGGATTGAACAGGGAGCATTCCCOAGTACATGCCAACATGCTG	86	
Db	52396	CAGACAGAAAGTGGATTGAACAGGAGCATTCCCAAGTACATGCCAACATGCTG	52455	

CC	including eye diseases such as retinopathy, neovascular glaucoma and macular degeneration, arteriosclerosis, anaemia, cancer, acute myeloid leukaemia, Alzheimer's disease, AIDS, epilepsy, neurofibromatosis, rheumatoid arthritis, psoriasis and inflammatory/ulcerative bowel diseases. The present sequence is a gene of the invention.	xx	Sequence 10528 BP; 2873 A; 86 C; 2164 G; 5405 T; 0 other;
Query Match	65.0%	Score 1286.4;	DB 24; Length 10528;
Best Local Similarity	78.9%	Pred. No. 0;	Mismatches 0; Indels 0; Gaps
Matches 1533; Conservative	0		
Qy	30 AACAGAGAAACGGATTGAAACAGGAGGCATTCCCGATACATCCAAATGCTGCC	89	
Db	2201 AACAAAATAAATAAACAAACGATTCCCAATCATCCAAATCATPATCC	214	
Qy	90 ACATCUCGTTCTCGTTTATCAGAAATAACCAACGAGAGCGGGAGAAGAGTCACCC	149	
Db	2141 ACATCUCGTTCTCGATTATCAAATAACCAACGAGAGCGGGAGAAGAGTCACCC	208	
Qy	150 TTGGATATGATTACGGTGTCCCTGTCATAAATTTGACGTTAACGAAATGGGCCAA	209	
Db	2081 TTAAATATAUTACGTAATCCTATCATAAATTAACTGTAACAAACAAACCCAA	202	
Qy	210 CTCTGCCTCCGCTTACTCGCTGTTGTCATCTTGTGTTGGGCAACATGCTGTC	269	
Db	2021 CTCTACCTCCGCTTACTCGTATATTCATCTTAACTAAACATACATACATC	196	
Qy	270 GTCCTCATCTTAAATAACTGCAAAAGCTGAAGCTGACTGACATTTACCTGCTCAC	329	
Db	1961 GTCCTCATCTTAAACTACAAACTAAACTTAACGTAACAAACAAACCCAA	190	
Qy	330 CTGGCCATCTCGATCTGCTTCTTCTTATTACTCTCCATTGTTGGCTTACTCTGCTGCA	389	
Db	1901 CTAAACCATCTCPAAATCTACTCTTCTTCTTATTACTCTCCATTATAACCTACTACAA	184	
Qy	390 AATGAGTGGCTTGTGGAAATGGAATGTCGAATAATTACAGGGCTGTATCACTCGGT	449	
Db	1841 ATAAATAAAATCTTAAATACATAAAATACATAAAATACATAAACTACATACATC	178	
Qy	450 TATTGGGGAAATCTCTTCATCATCTCCCTGACAATGATAGATACCTGGATTGTC	509	
Db	1781 TATTAAAGAAATCTCTTCATCATCTCCCTAACATGATAAACTCTAATCTATTATC	172	
Qy	510 CATCTCTGTTGGTTAAAGCAGGAGGGTCACTTGGGGTGTGACAATGTTGATC	563	
Db	1721 CATACTATTTACTTAAACCAAACGATCACCTTAAATAACAAATAATACAA	166	
Qy	570 ACCGGTTGTTGGCTGTTGGCTCTGTCCTGGCTTGGGCTTGTGCTCCAGGAATCATCTT	622	
Db	1661 ACCTAATTAACATATTCATCTTCTTCTTCTTAAATCATCTTAAATACAAATAAA	166	
Qy	630 GAAGATCTGCTTATGTCGTGGCCCTTATTTCAGGGATGAAATTTCCACACACA	68	
Db	1601 AAAATTCTATTATCATAACCTTAAATTTCCAGGAAATAAAATTTCCACACACA	154	
Qy	690 ATAATGAGGACATTTGGGGCTGGCTCTGGCTCATATGGTCATCTGGTACTCTG	74	
Db	1541 ATAATAAAAAACATTAAACTAACTAATCCACCGTACTCATPATCATCTACTCG	14	
Qy	750 GGATTCCTGAAACACTGCTGGTCACTTATGTTTACTCTCTCTGGACTCCCTATACATGTCAT	86	
Db	1481 AAAATCCTAAAACCCCTACTCGATGAAACGAAAGAGGCATAGGGCACTGAA	13	
Qy	810 GTCACTTCAACATCATGATGTTTACTCTCTCTCTCTCTCTCTGACTCCCTATACATGTCAT	80	
Db	1421 ATCACTCTACCATCATATAATTATTCATCTCTCTAAACTCCCTATACATGTCAT	13	
Qy	870 CTCTGAAACACCTTCAGGAAATTCTGGCTTCTGGCTGAACTGTAAGGCAACGACTG	92	
Db	1361 CTCTAAACACCTTCAGGAAACTCTGACTAAATACATACATACATACATACATACAT	13	
Qy	930 GACGACGCCAGGAGCTTGACAGAGACTCTGGGATGACTCTGGCTGATACATCCATC	98	

		1301	AACCAACCGCAAAATACAAAAGACTCTTAAATAACTACTAATCCATC
Db		990	ATCTATGCCCTCGTGGGAGAACGTTACAGAGGTAACTCTCGGTGTTCTCGGAAGCAC 104
Qy		1241	ATCTATACCTCTCGTAAAGAAATTCTCAAATATCTCGATATTCGAAACAC 118
Db		1050	ATCACCAGGCCTCTCGCAAAACATGTCAGTTCTACAGGGAGACAGTGATGGAGTG 110
Qy		1181	ATCACCACAGCTTCTCAACAAATCCAAATTCTACAAAAAAACATAATAAAATA 112
Db		1110	ACTTCAACAAACAGGCCCTCCACGGGGAGCAAGAACTCTCGCTGGTTATAAACAGAG 116
Qy		1121	ACTTCACAAACAGGCCCTCCACGGGGAGCAACAAATCTCGFACTTTATAAACAGAA 106
Db		1170	GAGCAGTTGATTTGTTAAAGGGAGAACAACTGTATATACAAACAACTCA 122
Qy		1061	AAACAAATTAAATTATTAATAAAACAAAAAAATAACAACTATACAAACAACTCA 100
Db		1230	AGGGTTGTTGAAACATAGAAACCTGTAAAGCAGGTGGCCAGGAACCTCTAGGGCTGTGCTG 128
Qy		1001	AAATTATTAACAAATAAAACCTATAAAACAAATAACCTCAAAACTATATA 942
Db		1290	TACTAATAGAGACTATGTCACCAAATGATGATCCAAATGTGTCAGGAAATATCCAGA 134
Qy		941	TACTAATACAAACTATACCCAAATACATATCCAAACATATACTCAAAATAATCCAAA 882
Db		1350	AAAPCTGTGGTAGAGACTTTGACTCTCCAGAAAGCTCATCTGAGCTCTGAAAAATGCC 140
Qy		881	AAAPCTTAATAAAACTTTAACCTCAGAAACATCTCAACTCTAAATAATACC 822
Db		1410	TCATACCTCTGTGTAATCCTCTTTCTAGTCUTCATATTCTCACTCAACTCTCTGA 146
Qy		821	TCATACCTTATACATACTCTTTCTPAATCTCATATTCTCACTCACTCTCAA 762
Db		1470	TTCITGTCATAGTCUTGTAATCAAGGGCAGCTGGAGGTGAAGAGAGAATGTGAGGCC 152
Qy		761	TTCTATCAATATCTTAATCTAAACCAACTAAATAAAAAAATATAACAAACAA 702
Db		1530	CAGTGAATGGGACTGTGGGAGTAGTGGGGCTGAGGGCAGGGAGACATG 156
Qy		701	CAAATAAAATAAAAATAAAATATAAAATCAAAACTAAAAAACATAAAACACATA 64
Db		1590	AGCATGGCTGAGCTTGGCAAAAGAACAAAGGTGAGCAAGGGCTACGCCATTGCCAGG 171
Qy		641	AACTAAACTAAACCTAAACAAACAAATAAAACATAACATCAACCTAAACAAA 58
Db		1650	GATGATACTGTCTTAGGCCCATCTGCCACGCTGTTAACCTTGAAAGGGTTCACCGG 171
Qy		581	AAATAAACTAACTCTTAAACCCCATCTACCACTGATATTAACTTAACTCAACAAA 52
Db		1710	TCAGGGAGAGTTGGGACTGCAATAACCTGGGATTTCTGGAATGTTCTGATGTTCT 171
Qy		521	TCAAAAAAAATTAAACACTACATAACCTAAACATAACATCAACATCAAC 40
Db		1770	TTTGGCATAATGTCATGACATATTGCTTTATACAGTTATCTATGGCCTCATGCAC 181
Qy		461	TTTACATAAAATACATACATATTCTACATTAACATTAACATCAACATCAAC 40
Db		1830	CTTACATTGAAACTCTATGAATACTATGCTCCATGTTCAAGTGTCTTACGCCACAT 181
Qy		401	CTTACATTAAATCTATATAAAATCTACATCTCAATTCTAAACCAT 34
Db		1890	CCCCCTGTCTAAACAAATCAGAAAATTGGTTATAAAAGTCATTATCTATGATATGCC 19
Qy		341	CCCCCTATCTAAACAAATCAGAAAATTGGTTATAAAAGTCATTATCTATGATATATAC 28
Qy		1950	TAATATATGTTATGCAATAATAAA 1973
Db		281	TAATATATATATACATATAAA 258

RESULT 11

Qry	ATGCTGTCACATCTCGTTCTCGGTATTAGTAAATTGAGGGTGAAGAACCTC	Score 1083; Pred. No. 9; 6e-304; Length 1083;
Db	ATGCTGTCACATCTCGTTCTCGGTATTAGTAAATTGAGGGTGAAGAACCTC	0; Gaps 0;
Qry	ACCACCTTGTATTAGTAAATTGAGGGTGAAGAACCTC	140
Db	ACCACCTTGTATTAGTAAATTGAGGGTGAAGAACCTC	200
Qry	GGGGCCAACCTCTGCCTACTCGTGTATTAGTAAATTGAGGGTGAAGAACCTC	120
Db	GGGGCCAACCTCTGCCTACTCGTGTATTAGTAAATTGAGGGTGAAGAACCTC	60
Qry	ATGCTGTCGTCGTCATCTTAATAAACTGAAAAAGCTGAATGCTGTCATCTTGTTGTGGCAC	260
Db	ATGCTGTCGTCGTCATCTTAATAAACTGAAAAAGCTGAATGCTGTCATCTTGTTGTGGCAC	180
Qry	ATGCTGTCGTCGTCATCTTAATAAACTGAAAAAGCTGAATGCTGTCATCTTGTTGTGGCAC	320
Db	ATGCTGTCGTCGTCATCTTAATAAACTGAAAAAGCTGAATGCTGTCATCTTGTTGTGGCAC	240
Qry	CTGCTAACCTGGCCATCTGTGTCATCTTGTTGTGGCAC	380

PS	PS	Claim 1; Page 12; 15pp; Japanese.
XX	XX	The present sequence encodes human monocyte chemoattractant protein 1 (MCP-1) receptor protein. The MCP-1 receptor protein and encoding DNA are used for the prevention and treatment of tumours and inflammatory, viral, infectious, allergic, diabetic and central nervous system diseases.
CC	CC	Sequence 1083 BP; 257 A; 259 C; 245 G; 322 T; 0 other;
CC	CC	Query Match 54.5%; Score 1078.2; DB 18; Length 1083;
CC	CC	Best Local Similarity 99.7%; Fred. No. 2.4e-302;
CC	CC	Mismatches 0; Indels 0; Gaps
CC	CC	Matches 1080; Conservative 0; Mismatches 3; Indels 0;
CC	CC	81 ATGCTGCCACATCGTGTTCGGTTATCAGAAATCAAACGAGGCGGTGAGAACTC 140
CC	CC	1 ATGCTGCCACATCGTGTTCGGTTATCAGAAATCAAACGAGGCGGTGAGAACTC 60
SQ	Qy	141 ACCACCTTTGTGATTGATTGATTGACTCGCTGCCTCATACTCGTGTTCATCTTGTTGTTGTCACATTCATAATTGACCTGAACTAAATT 200
SQ	Db	61 ACCACCTTTGTGATTGATTGATTGACTCGCTGCCTCATACTCGTGTTCATCTTGTTGTTGTCACATTCATAATTGACCTGAACTAAATT 120
SQ	Qy	201 GGGGCCAACCTCTGCTCTGCTTCACTCGTGTTCATCTTGTTGTTGTCACATTCATAATTGACCTGAACTAAATT 260
SQ	Db	121 GGGGCCAACCTCTGCTTCACTCGTGTTCATCTTGTTGTTGTCACATTCATAATTGACCTGAACTAAATT 180
SQ	Qy	261 ATGCTGTGCTGCTCATCTTAATAACTGAAAAGCTGAAGTGGTTGACTGACATTAC 320
SQ	Db	181 ATGCTGTGCTGCTCATCTTAATAACTGAAAAGCTGAAGTGGTTGACTGACATTAC 240
SQ	Qy	321 CTGCTCAACCTTGGCACATCTGATGCTGTTCTTCACTCTGCTTCACTGATGTTGCTTCATGTTGCTTCAC 380
SQ	Db	241 CTGCTCAACCTTGGCACATCTGATGCTGTTCTTCACTCTGCTTCACTGATGTTGCTTCATGTTGCTTCAC 300
SQ	Qy	381 TCTGCTGCAATGAGTGGGCTTGGGAATGCAATGTCGAATATTACAGGGGTGTAT 440
SQ	Db	301 TCTGCTGCAATGAGTGGGCTTGGGAATGCAATGTCGAATATTACAGGGGTGTAT 360
SQ	Qy	441 CACATTCGGTTATTTCGGGGAAATCTCTTCATCATCTCCCTGACATCGTATGATGACCTCG 500
SQ	Db	361 CACATTCGGTTATTTCGGGAATCTCTTCATCATCTCCCTGACATCGTATGACCTCG 420
SQ	Qy	501 GCTATTTGTCATGCTGTTGCTTAAAGCCAGGACGGTCACCTTTGGGGTGGTGGACA 560
SQ	Db	421 GCTATTTGTCATGCTGTTGCTTAAAGCCAGGACGGTCACCTTTGGGGTGGTGGACA 480
SQ	Qy	561 AGTGTGATCACCTGTTGGGTGTTGCTTATGTCCTGTCAGGAAATCATTTTACTAAA 620
SQ	Db	481 AGTGTGATCACCTGTTGGGTGTTGCTTATGTCCTGTCAGGAAATCATTTTACTAAA 540
SQ	Qy	621 TGGCAAGAAAAGAATTCCTGTTATGTCCTGTCAGGAAATCATTTTACTAAAAT 680
SQ	Db	541 TGGCAAGAAAAGAATTCCTGTTATGTCCTGTCAGGAAATCATTTTACTAAAAT 600
SQ	Qy	681 TTCCACACATAATGAGGAACATTTCGGGCTGCTGCTGCTCATGTCATC 740
SQ	Db	601 TTCCACACATAATGAGGAACATTTCGGGCTGCTGCTGCTCATGTCATC 660
SQ	Qy	741 TGCCTACTCGGAATTCCTGAAACCTGCTTGGGTGCTGAAAGGAGAAGGCTATGG 800
SQ	Db	661 TGCCTACTCGGAATTCCTGAAACCTGCTTGGGCTGCTGCTCATGTCATC 720
SQ	Qy	801 GCAGTGAAGTCACTTCACCATCATGTTGCTTGGGTGCTGCTCATGTCATC 860
SQ	Db	721 GCAGTGAAGTCACTTCACCATCATGTTGCTTGGGTGCTGCTCATGTCATC 780
SQ	Qy	861 ATTGTCATCCTGCTGAAACCTTCAGGAATTCTCAGGATTCCTGCTGAGTAACTGTGAAGGCC 920
SQ	Db	781 ATTGTCATCCTGCTGAAACCTTCAGGATTCCTGCTGAGTAACTGTGAAGGCC 840
SQ	Qy	921 AGTCACTGACCAAGGCCAGCGAGGTGACAGAGACTCTGGATGACTCACTGTCATC 980
SQ	Db	841 AGTCACTGACCAAGGCCAGCGAGGTGACAGAGACTCTGGATGACTCACTGTCATC 900

QY	981	ATCCCCATCATCATATGGCCCTCGTTGGGAAAGTTCAGAAGGTATCCTCGGTGTTCTTC 1040
Db	901	AATCCCCATCATCATATGGCCCTCGTTGGGAAAGTTCAGAAGGTATCCTCGGTGTTCTTC 960
QY	1041	CGAAAGCACATCACCAGGCCCTCTGCACAAACAACTCCAGTTTCACTACAGGGAGACAGTG 1100
Db	961	CGAAAGCACATCACCAGGCCCTCTGCACAAACAACTCCAGTTTCACTACAGGGAGACAGTG 1020
QY	1101	GATGGATGACTCAACAAACAGCCTTCACTGGGGAGGAAACTCTCGGCTGGTTTA 1160
Db	1021	GATGGATGACTCAACAAACACCTTCACTGGGAGGAAACTCTCGGCTGGTTTA 1080
QY	1161	TAA 1163
Db	1081	TAA 1083
RESULT 15		
	AA096297	standard; cDNA; 2232 BP.
ID	AA096297	
XX		
AC	AA096297;	
XX		
DT	29-DEC-1995	(first entry)
XX		
DE	Human monocyte chemoattractant protein-1 receptor MCP-1RA.	
DE	Human monocyte chemoattractant protein-1 receptor; MCR-1R; chemokine; ss.	
KW	Monocyte chemoattractant protein-1 receptor	
XX	Homo sapiens	
OS	Homo sapiens	
XX	W09519436-A.	
XX		
PD	20-JUL-1995.	
XX		
PF	11-JAN-1995;	
XX	95WO-US00476.	
PR	13-JAN-1994;	
XX	94US-0182962.	
XX	(REGC) UNIV CALIFORNIA.	
PA		
FT	Charo I, Coughlin S;	
XX		
DR	WPI; 1995-263866/34.	
XX		
PT	DNA encoding monocyte chemo-attractant protein-1 receptor - used partly for identifying antagonists and for treating diseases characterised by monocytic infiltrates	
XX		
PS	Disclosure: Fig 1; 84pp; English.	
XX		
CC	To identify and clone new members of the chemokine receptor gene family, degenerate oligo primers were designed based on the third conserved sequences R79167 in the second and R79168 in the third transmembrane domains of the MIP-1alpha/RANTES receptor, the IL-8 receptors and the HUMSR5 orphan receptor (GenBank Accession #M99239).	
CC	The degenerate oligo incorporating EcoRI and XbaI sites at their 5' ends are Q96299 and Q96300. Amplification of cDNA derived from MM6 cells with the primers yielded a number of PCR products. One cDNA appeared to encode a novel protein. To obtain a full-length version of this clone, a MM6 cDNA library was constructed in pPROG and probed with the PCR product. A 2.1 kb cDNA clone was obtained. Analysis of additional clones in the MM6 cDNA library revealed a second sequence that was identical to the 2.1 kb cDNA sequence first obtained.	
CC	From the 5' UTR through the putative seventh transmembrane domain but contained a different cytoplasmic tail. The second sequence appears to represent alternative splicing of the carboxyl-terminal	

tail of the MCP-1R protein. The two sequences are denoted MCP-1RA and MCP-1RB (see Q9297/R79165 & Q66298/R79166). Active mature MCP-1RA has a predicted mol. wt. of about 42,000 daltons. MCP-1RB has a mol. wt. of about 41,000 daltons. MCP-1RA

XX

SQ Sequence 2232 BP; 602 A; 464 C; 508 G; 658 T; 0 other;

Query Match 49.5%; Score 980; DB 16; Length 2232;

Best Local Similarity 100.0%; Pred. No. 1.2e-273; Mismatches 0; Indels 0; Gaps 0;

Matches 980; conservative 0; Query Match 49.5%; Score 980; DB 16; Length 2232;

Db 1 GGATTGAAACAGGAGCATTCCCACTGCCACATCCACAAAGTCATGCCACATCCACAAATGCGTCCACATCIGTTCT 60

Qy 102 CGGTPTATGAAATAACCAACAGAAGCCATTCCCACTGCCACATCCACAAAGTCATGCCACATCCACAAATGCGTCCACATCIGTTCT 101

Db 61 CGGTPTATGAAATAACCAACAGAAGCCATTCCCACTGCCACATCCACAAATGCGTCCACATCCACAAATGCGTCCACATCIGTTCT 120

Qy 162 TACGGTGCCTCCCTGTCATAAATTGACCTTGAAAGAAATGGGCCCAACTCCCTGCCCTCG 221

Db 121 TAGGTGCTCCCTGTCATAAATTGACCTTGAAAGAAATGGGCCCAACTCCCTGCCCTCG 161

Db 222 CTCTACTCGCTGGTGTICATCTTGGTTTGTTGGCAACATGCTGTCCTCCMCATCTA 281

Qy 222 CTCTACTCGCTGGTGTICATCTTGGTTTGTTGGCAACATGCTGTCCTCCMCATCTA 281

Db 181 CTCTACTCGCTGGTGTICATCTTGGTTTGTTGGCAACATGCTGTCCTCCMCATCTA 240

Qy 282 ATAAACTCCAAAAGCTGAAGCTGCTGACTGATTTGACCTGAACTGGCCATCTC 341

Db 241 ATAAACTCCAAAAGCTGAAGCTGCTGACTGATTTGACCTGAACTGGCCATCTC 300

Qy 342 GATCTGCTTTCCTCTATTACTCUCCAATTGEGGTCACTCTGCTGCAAATGAGTGGTC 401

Db 301 GATCTGCTTTCCTCTATTACTCUCCAATTGEGGTCACTCTGCTGCAAATGAGTGGTC 360

Qy 402 TTGGGAATGCAATGTCGAAATTATTCAAGGGCTGTTATCACATCGTTATTTGGCGGA 461

Db 361 TTGGGAATGCAATGTCGAAATTATTCAAGGGCTGTTATCACATCGTTATTTGGCGGA 420

Qy 462 ATCTTCATCATCTCCCTGCAAACTGCAATGCAATTACTCTGGTAATTGTCATCTGTT 521

Db 421 ATCTTCATCATCTCCCTGCAAACTGCAATGCAATTACTCTGGTAATTGTCATCTGTT 480

Qy 522 GCTTTAAAGCCAGGAGCTAACCTTGGGTGGTGAAGTGTGATCACCTGGTGGTG 581

Db 481 GCTTAAAGCCAGGAGCTAACCTTGGGTGGTGAAGTGTGATCACCTGGTGGTG 540

Qy 582 GCTGTTTGTCTGTCAGGAATCATCTTACTAAATGCCAAAGAACATTCTGTT 641

Db 541 GCTGTTTGTCTGTCAGGAATCATCTTACTAAATGCCAAAGAACATTCTGTT 600

Qy 642 TATGTCGTCGCCCTTATTTCACAGGATGGAATAATTCCACACAATAATGAGAAC 701

Db 601 TATGTCGTCGCCCTTATTTCACAGGATGGAATAATTCCACACAATAATGAGAAC 660

Qy 702 ATTTCGGGCTGGTGTCTGGCTGTCATCATGGCATCTGCTACTCGGAATCTGTA 761

Db 661 ATTTCGGGCTGGTGTCTGGCTGTCATCATGGCATCTGCTACTCGGAATCTGTA 720

Qy 762 ACCCTGCTTGGTGTCAACAGGAGAAAGGGCATAGGGCAGTAGGAGTCATCTCAC 821

Db 721 ACCCTGCTTGGTGTCAACAGGAGAAAGGGCATAGGGCAGTAGGAGTCATCTCAC 780

Qy 822 ATCATGATGTTTACTTCTCTCTGGACUCCCTATAACATTGTCATTCTGCACACC 881

Db 781 ATCATGATGTTTACTTCTCTCTGGACUCCCTATAACATTGTCATTCTGCACACC 840

Qy 882 TTCCGGAATCTCCTGGCCCTGAAACTGAAAGCACCAGTCACCTGGCAACGCCAC 941

Db 841 TTCCGGAATCTCCTGGCCCTGAAACTGAAAGCACCAGTCACCTGGCAACGCCAC 900

Qy 942 CAGGTGACAGAGACTCTGGATGACTCATGCTGCCATCAATCCCACATCTATGCCCTC 1001